

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
X	X	X	X	X	X
REGISTERED CIVIL ENGINEER			X	DATE	
PLANS APPROVAL DATE			REGISTERED PROFESSIONAL ENGINEER		
			No.	X	
			Exp.	X	
			CIVIL		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

DESIGN DATA

Design: AASHTO LRFD Bridge Design Specifications, 4th edition with California Amendments

WS: 33 psf on Sound wall and Barrier

LS: Varied surcharge on level ground surface

CT: 54 kip maximum traffic impact loading evenly distributed over 10 feet at top of the barrier and 1:1 distribution down and outward

EQE: Mononabe-Okabe Method
K_H = 0.3
K_V = 0.0

Soil: Ø = 34°
γ = 120 pcf

Reinforced Concrete: f'c = 3600 psi
fy = 60,000 psi

Load Combinations and Limit States

Service I Q=1.00DC+1.00EV+1.00EH+1.00LS+0.30WS

Service II Q=1.00DC+1.00EV+1.00EH+1.00WS

Strength I Q=aDC+βEV+1.50EH+1.75LS

Strength III Q=aDC+βEV+1.50EH+1.40WS

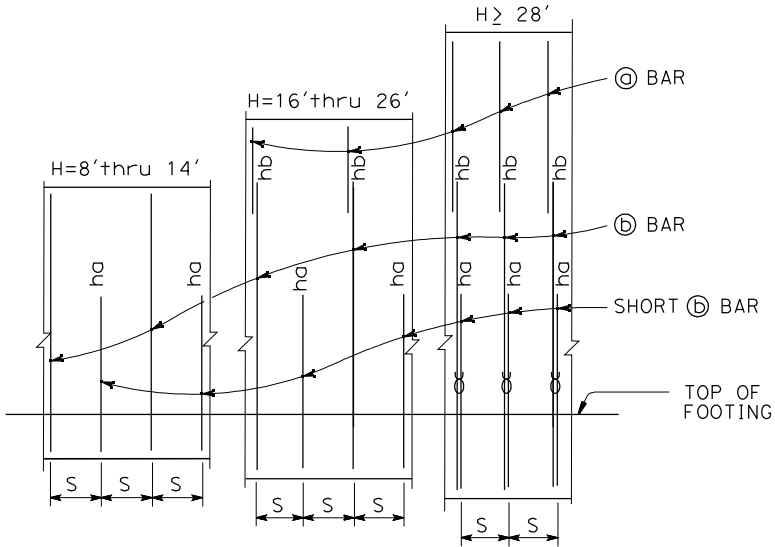
Strength V Q=aDC+βEV+1.50EH+1.35LS+0.40WS

Extreme I Q=1.00DC+1.00EV+1.00EH+1.00EQD+1.00EQE

Extreme II Q=1.00DC+1.00EV+1.00EH+1.00CT

Where: Q: Force Effects
a: 1.25 or 0.90, Which ever Controls Design
B: 1.35 or 1.00, which ever Controls Design
DC: Dead Load of Structure Components
EV: Vertical Earth Fill Pressure
LS: Live Load Surcharge
EQE: Seismic Earth Pressure
EQD: Soil and Structure Components Inertia. Soil inertia ignored for stem design
WS: Wind Load on Sound wall and Barrier
CT: Vehicular Collision Force

- NOTES:
- All piles are class 90 concrete piles.
 - Pile batter shown are 1:3.
 - Minimum distance between center pile and edge of footing is 1'-6".
 - Lateral resistance of each pile:
30 kip for strength limit states.
40 kip for extreme limit states.
 - Maximum spacing between piles is shown in the table. Reduce to suit the length of footing.
 - Minimum distance between any two piles is 3'-0". Reduce to suit the length of footing.
 - For sound wall and retaining wall architectural finish or texture, see details elsewhere in Project Plans.
 - For details not shown and drainage notes, see B3-5
 - Footing cover, 2'-0" minimum.
 - For sound wall and reinforcement see "SOUND WALL - MASONRY BLOCK WITH BARRIER ON RETAINING WALL" sheets.
 - For H=6' through 14', extend ⓐ bar into Barrier for stem with haunch.

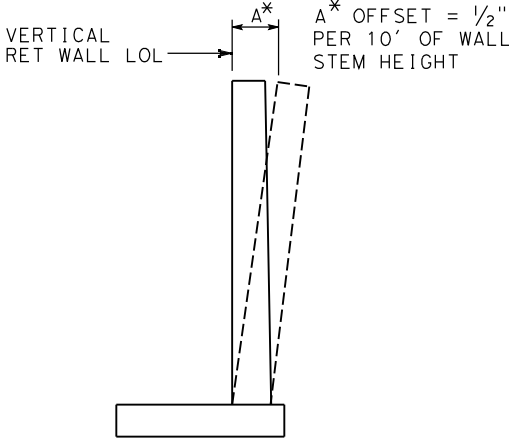


ELEVATION

NOTES:

"ha", "hb" above ⓑ bars indicate distance from top of footing to upper end of ⓑ bars, see table.

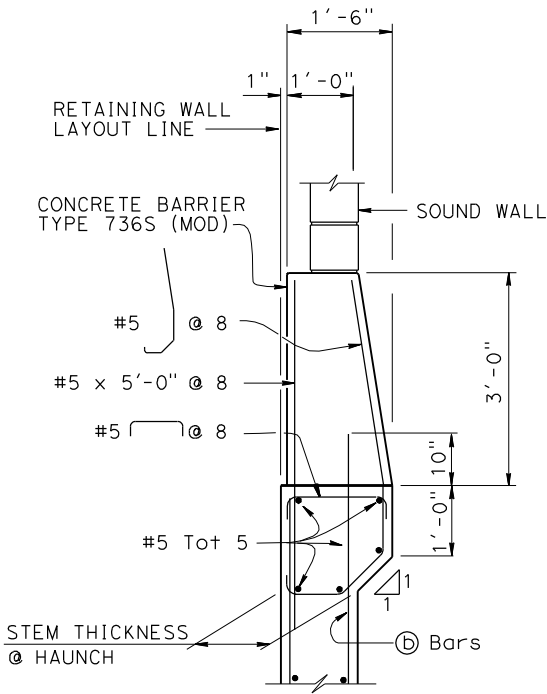
"S" is ⓑ bar spacing, see table.



WALL OFFSET

NO SCALE

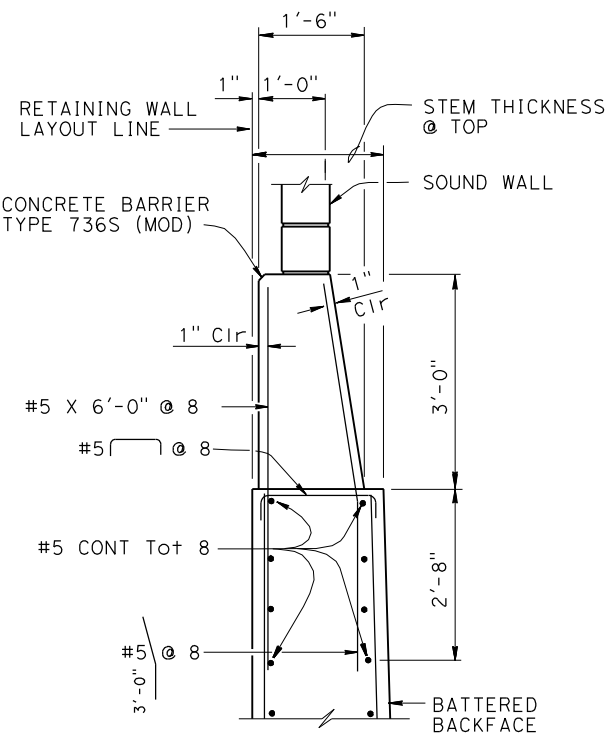
Values for offsetting forms to be determined by the engineer



DETAIL A - WITH HAUNCH

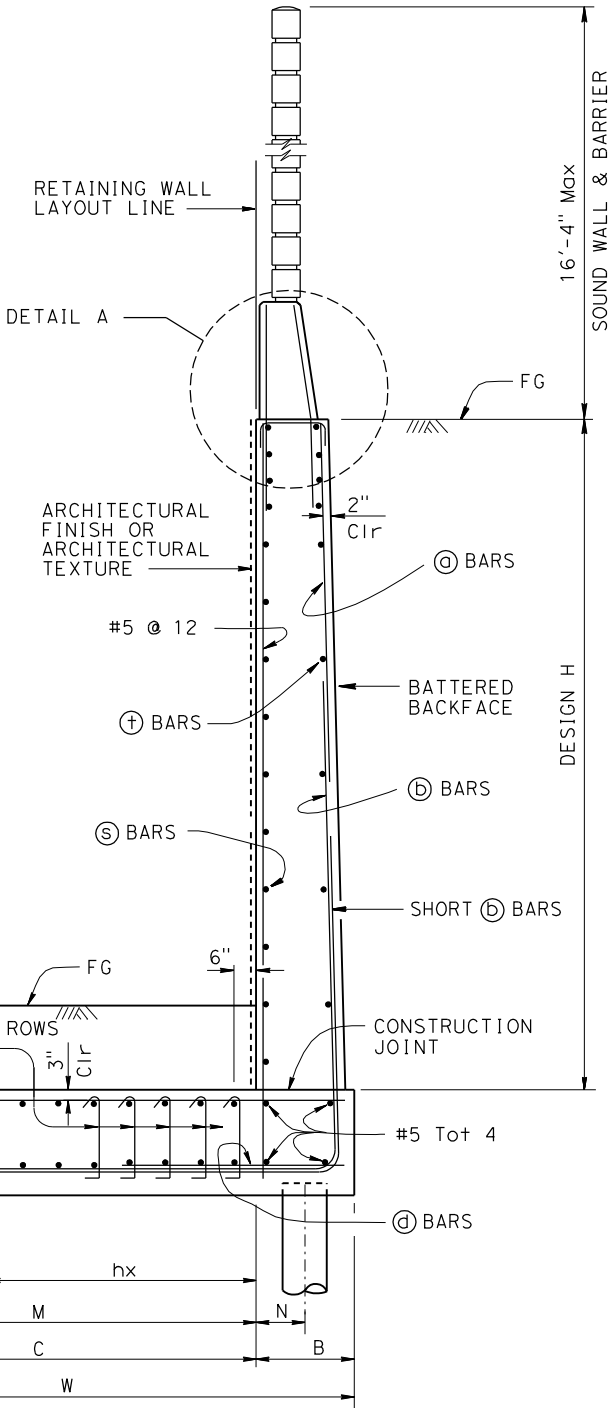
No Scale

For Details not shown, see "DETAIL A - WITHOUT HAUNCH"



DETAIL A - WITHOUT HAUNCH

No Scale



PILE FOOTING SECTION

No Scale

STANDARD DRAWING	
FILE NO. xs14-410-1	APPROVAL DATE <u>July 2011</u>

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.
X
POST MILE
X

X	
RETAINING WALL TYPE 7SWBP - DETAILS NO.1	

UNIT: X
PROJECT NUMBER & PHASE: X

CONTRACT NO.: X

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
	X	X

DATE PLOTTED => \$DATE USERNAME => \$USER TIME PLOTTED => \$TIME